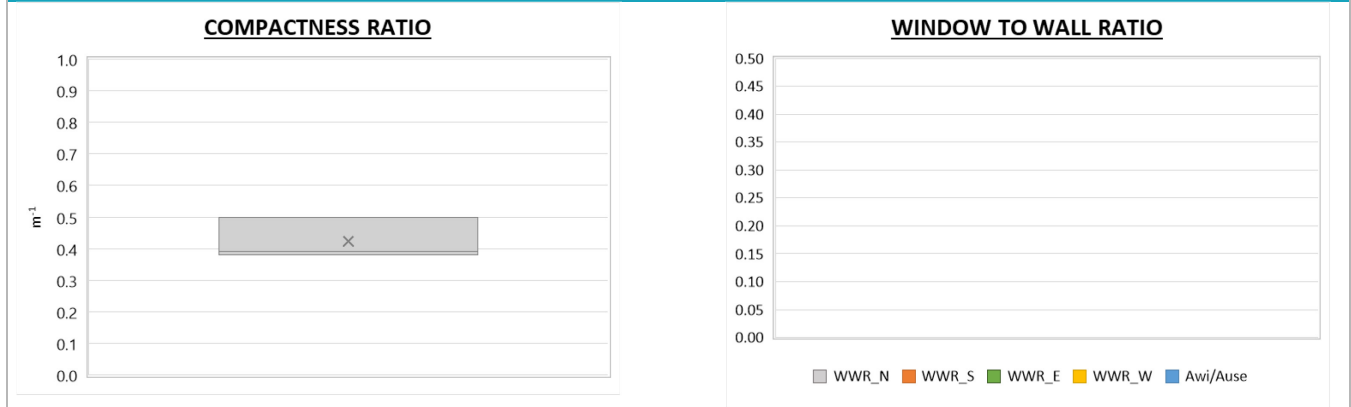


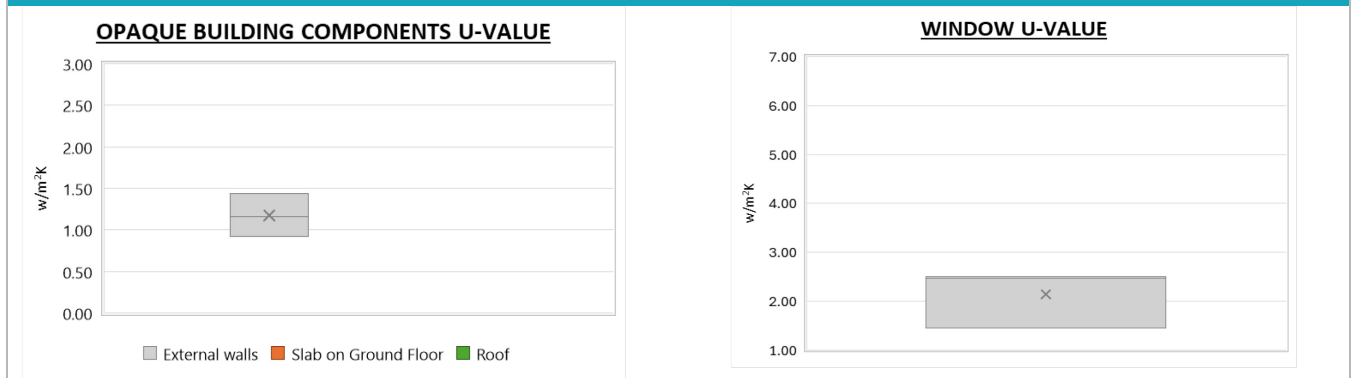
Region:	Lombardy						Archetype code: RES_APPBLOCK_1901-1920_E_LOM	
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1901-1920							
Climatic zone:	E	Number of records:		36				
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: Solid Brick masonry (50 cm) (cod. MLP02) Roof slabs: Masonry with lists of bricks and concrete (6 cm + 24 cm) (cod. SOL03)							Data sources: CURIT database (31%) Municipal database (25%) CENED database (APE) (13%) Others (31%) #	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	$n_f$	-	3.86	0.96	3.00	4.00	4.00
	Gross height	$H_g$	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross floor area	$A_{H;g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross volume	$V_{H;g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m <sup>3</sup>	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H;g}$	m <sup>-1</sup>	0.42	0.07	0.38	0.39	0.50
	WWR – North orientation	$WWR_N$	-	-	-	-	-	-
	WWR – South orientation	$WWR_S$	-	-	-	-	-	-
	WWR – East orientation	$WWR_E$	-	-	-	-	-	-
	WWR – West orientation	$WWR_W$	-	-	-	-	-	-
	Window to useful floor area ratio	$A_{wi}/A_{\text{use}}$	-	-	-	-	-	-
	ENVELOPE	Roof type	Wood structure and planking with tiles: 49%; Reinforced brick-concrete slab low insulation: 33%; Reinforced brick-concrete slab medium insulation: 15%; Prefabricated Insulation panels: 3%					
U-value of the roof		$U_{fi;up}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
External walls type		Solid Brick masonry: 100%						
U-value of the wall		$U_{wl}$	W/(m <sup>2</sup> ·K)	1.18	0.26	0.92	1.16	1.44
Slab on ground floor type		Masonry with lists of stones and concrete: 100%						
U-value of the floor		$U_{fi;lw}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
Windows type		-						
U-value of the windows		$U_W$	W/(m <sup>2</sup> ·K)	2.14	0.60	1.45	2.47	2.51
Shading system type	Shutter: 97%; Roller blinds: 3%							
GAINS and VENTILATION	Occupancy density *	$O_C$	person/m <sup>2</sup>	UNI EN 16798-1 - Table A.19				
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Autonomous: 89%; Centralized: 11%						
	Heating generator	Traditional boiler: 83%; Condensing boiler: 17%						
	Daily operating time of the heating system *	$t_H$	h	14.00	0.00	14.00	14.00	14.00
	Energy carrier	Natural gas: 80%; Electricity: 20%						
	Heating emission sub-system	Radiators: 100%						
	Cooling system type	Heat pump: 100%						
	Daily operating time of the cooling system *	$t_C$	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous - coupled with heating: 89%; Autonomous - detached from heating: 11%						
	DHW generator	Natural gas boiler: 82%; Electric boiler: 18%						
	# Visual inspection (13%), Expert Assumption (8%), Local database (6%), Standards (4%) * These values were not available in the considered sources, and are thus derived from UNI EN Standards							

Region:	Lombardy	Archetype code: RES_APPBLOCK_1901- 1920_E_LOM
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Number of records:		36

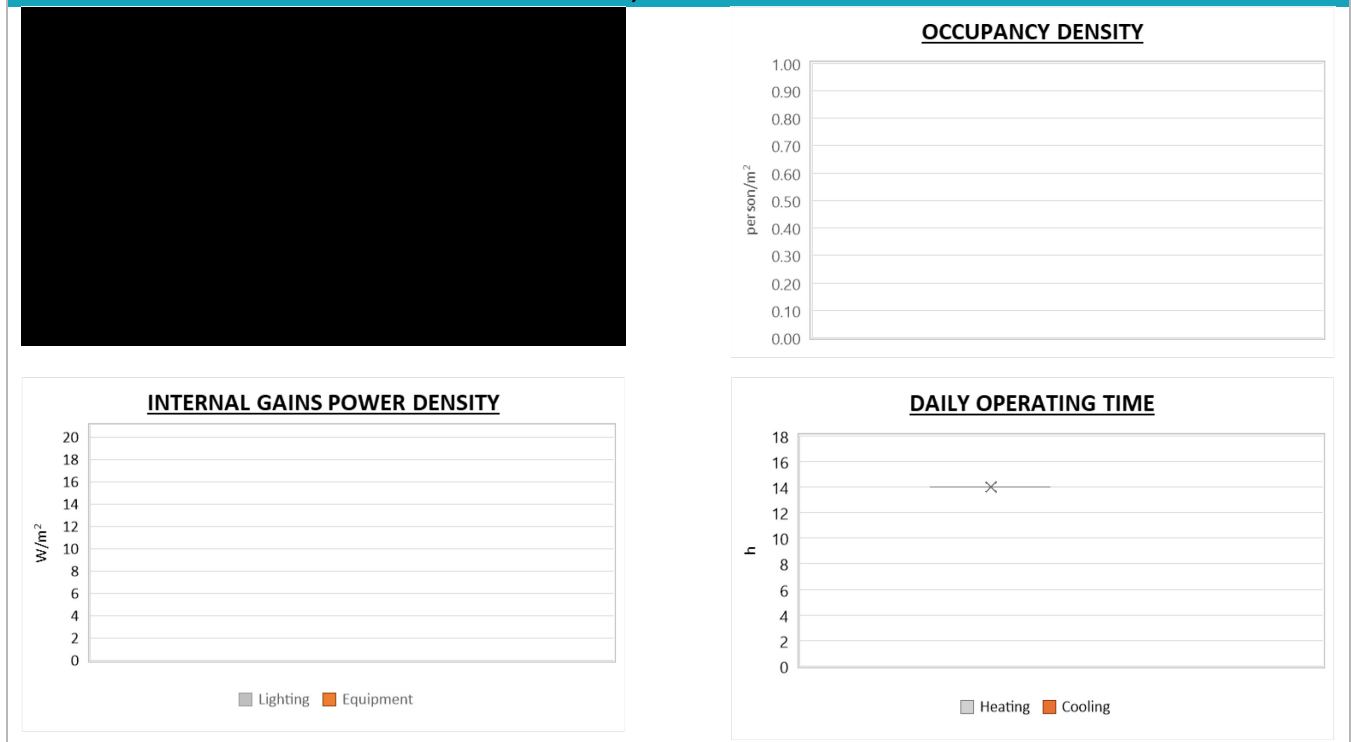
### Numerical variables – GEOMETRY



### Numerical variables – ENVELOPE



### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

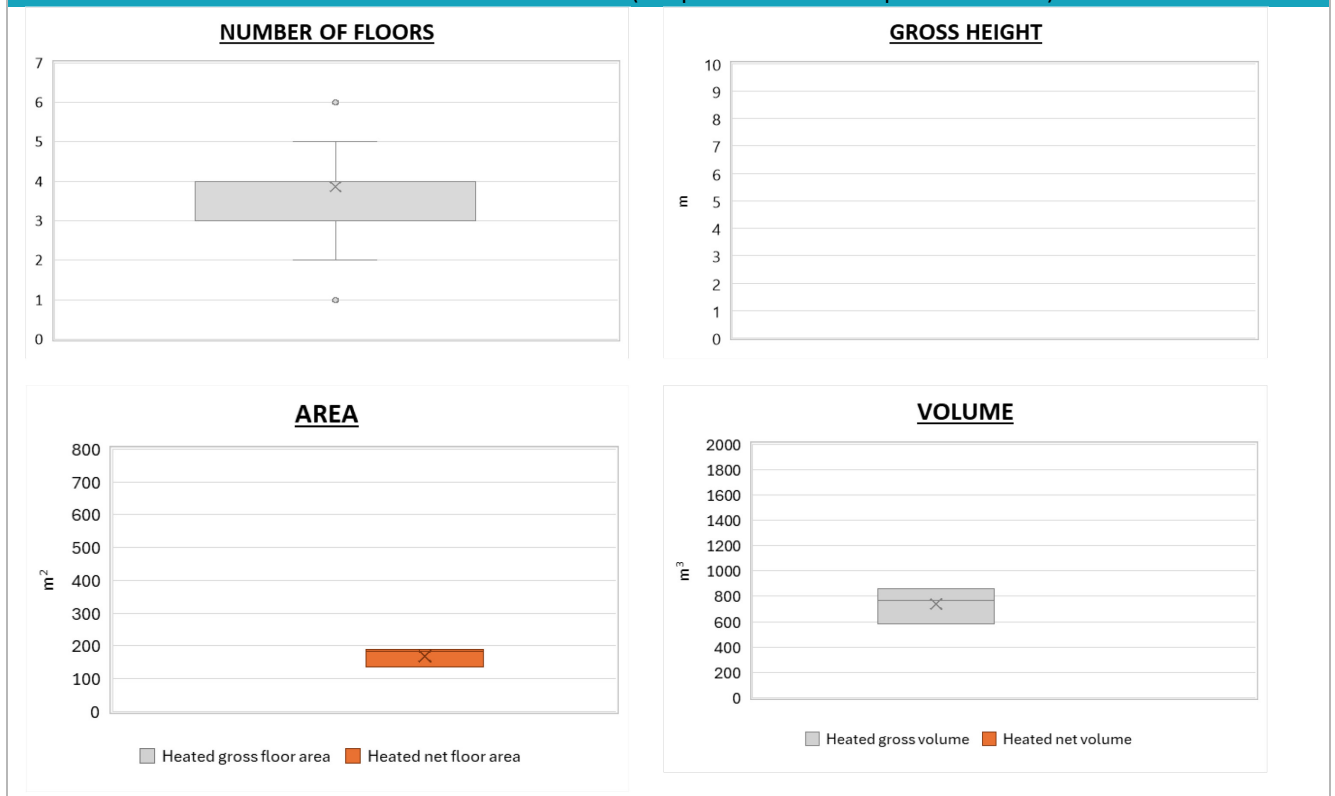


Region:	Lombardy			Archetype code: RES_APPBLOCK_1901- 1920_E_LOM
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1901-1920			
Climatic zone:	E	Number of records:	36	

ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	$H_n$	m	-	-	-	-	-
	Heated gross floor area	$A_{H;g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m <sup>2</sup>	169.30	29.69	135.19	183.30	189.40
	Heated gross volume	$V_{H;g}$	m <sup>3</sup>	738.30	142.13	583.70	767.90	863.30
	Heated net volume	$V_{H;n}$	m <sup>3</sup>	-	-	-	-	-
THERMAL SYSTEMS	Heating efficiency or COP	$\eta_{H;gen}$ or $COP_{H;gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H;gen}$	kW	48.83	13.45	33.30	56.60	56.60
	Cooling efficiency or EER	$\eta_{C;gen}$ or $EER_{C;gen}$	-	This value has to be retrieved from suitable datasheets				
	Total cooling power *	$P_{C;gen}$	kW	13.17	1.15	12.50	12.50	14.50
	Temperature of DHW	$\vartheta_W$	°C	40.00	0.00	40.00	40.00	40.00
	DHW system power *	$P_{W;gen}$	kW	48.83	13.45	33.30	56.60	56.60

\* These values refer to the apartment scale

### Additional data: GEOMETRY (the plots refer to the apartment scale)



Region:	Lombardy	Archetype code: RES_APPBLOCK_1901- 1920_E_LOM
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1901-1920	
Climatic zone:	E	
Number of records:		36

### Additional data: other numerical variables that are not included in the archetype

